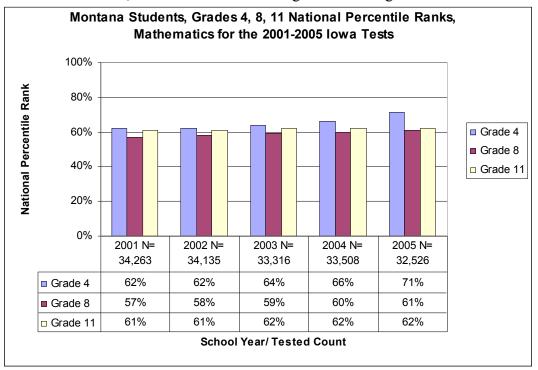
# Mathematics, Grades 4, 8, and 11

# Chart 1: 4, 8, 11 M

The chart below shows the National Percentile Ranks for grades 4, 8, and 11

- In 2001, grade 4 scored an NPR of 62%, grade 8 a NPR of 57%, and grade 11 a NPR of 61%.
- In 2005, NPR scores for all three grades were higher than in 2001.



**Table 1: 4, 8, 11 M**Math National Percentile Rank for each disaggregation across Montana in 2001-2005.

		-	Grade 4			-88-48	Grade 8			Grade 11					
Groups	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
All Students	62%	62%	64%	66%	71%	57%	58%	59%	60%	61%	61%	61%	62%	62%	62%
Students Without Disabilities	66%	65%	67%	69%	74%	60%	62%	63%	64%	64%	64%	64%	65%	65%	65%
Students With Disabilities	31%	31%	35%	40%	46%	25%	23%	24%	27%	28%	26%	26%	28%	26%	25%
Female Students	60%	61%	63%	65%	70%	58%	59%	60%	60%	62%	60%	61%	62%	61%	62%
Male Students	62%	63%	64%	67%	72%	57%	57%	58%	60%	60%	62%	62%	63%	63%	62%
Native American Students	40%	40%	41%	46%	52%	33%	32%	36%	37%	38%	41%	39%	40%	39%	39%
White Students	66%	65%	67%	69%	74%	60%	62%	63%	63%	64%	63%	63%	65%	64%	64%
Students on Free/Reduced Lunch	51%	50%	53%	55%	62%	45%	45%	45%	48%	48%	49%	48%	50%	48%	49%
LEP*	NA	29%	29%	37%	37%	NA	24%	21%	26%	25%	NA	34%	36%	32%	34%

<sup>\*</sup>LEP 2001 data were incomplete.

Table 2: 4, 8, 11 M

Math: The table below shows the percentage of students for each disaggregation scoring in each performance category in grades 4, 8, and 11 for 2001-2005.

Scoring in cac			Grade		<u> </u>	,	Grad				Grade	11	
Groups/Year		Advanced Stanines 8-9	Proficient Stanines 5-7	NP Stanines 4	Novice Stanines 1-3	Advanced Stanines 8-9	Proficient Stanines 5-7	NP Stanines 4	Novice Stanines 1-3	Advanced Stanines 8-9	Proficient Stanines 5-7	NP Stanines 4	Novice Stanines 1-3
•	2001	14%	59%	14%	12%	15%	54%	15%	16%	17%	59%	12%	12%
	2002	14%	58%	15%	13%	14%	54%	15%	17%	17%	59%	12%	12%
All Students	2003	16%	59%	13%	12%	15%	55%	14%	16%	17%	60%	12%	11%
	2004	18%	60%	13%	10%	15%	56%	15%	15%	17%	58%	12%	13%
	2005	22%	57%	12%	9%	16%	55%	14%	15%	17%	59%	12%	13%
	2001	16%	61%	13%	9%	16%	57%	15%	12%	18%	62%	11%	9%
Cr. 1. 4 XXVII. 4	2002	16%	61%	13%	10%	16%	58%	14%	12%	18%	62%	11%	9%
Students Without Disabilities	2003	17%	62%	12%	9%	16%	58%	14%	12%	18%	63%	11%	8%
Disabilities	2004	19%	62%	12%	7%	17%	60%	14%	10%	19%	61%	11%	9%
	2005	24%	59%	11%	6%	18%	59%	13%	11%	18%	62%	11%	9%
	2001	2%	34%	22%	42%	1%	19%	21%	59%	1%	23%	25%	52%
C414- XV:4-	2002	3%	31%	22%	44%	1%	19%	22%	58%	1%	22%	23%	54%
Students With Disabilities	2003	4%	36%	22%	38%	1%	22%	21%	56%	2%	25%	22%	51%
Disabilities	2004	6%	40%	23%	32%	2%	23%	23%	53%	1%	24%	22%	53%
	2005	8%	45%	19%	29%	2%	26%	21%	51%	1%	22%	24%	53%
	2001	13%	60%	15%	12%	13%	57%	16%	14%	15%	63%	12%	10%
	2002	13%	59%	15%	13%	13%	58%	15%	14%	14%	61%	14%	11%
Female Students	2003	14%	61%	13%	11%	14%	58%	14%	14%	14%	64%	12%	10%
	2004	16%	61%	14%	10%	14%	59%	14%	13%	14%	61%	13%	12%
	2005	20%	59%	13%	8%	15%	59%	14%	13%	15%	62%	12%	11%
	2001	16%	58%	14%	13%	16%	50%	15%	19%	20%	56%	11%	13%
	2002	16%	57%	13%	14%	15%	51%	15%	19%	19%	56%	12%	13%
Male Students	2003	17%	57%	14%	12%	15%	51%	15%	19%	20%	57%	11%	13%
	2004	19%	58%	12%	10%	16%	52%	15%	16%	20%	55%	11%	14%
	2005	24%	56%	11%	9%	17%	52%	14%	17%	19%	55%	12%	14%
	2001	4%	43%	23%	29%	3%	32%	21%	44%	5%	43%	19%	33%
Native American	2002	4%	42%	23%	31%	2%	31%	21%	46%	4%	41%	22%	33%
Students	2003	5%	44%	21%	29%	5%	34%	23%	38%	4%	42%	21%	32%
Students	2004	7%	48%	21%	25%	3%	38%	22%	36%	4%	42%	20%	34%
	2005	8%	51%	20%	21%	5%	37%	21%	37%	4%	41%	21%	34%
	2001	16%	61%	13%	10%	16%	57%	14%	12%	19%	61%	11%	10%
	2002	16%	61%	13%	10%	16%	57%	15%	12%	18%	60%	12%	10%
White Students	2003	17%	61%	12%	9%	16%	58%	13%	13%	18%	62%	11%	9%
	2004	19%	61%	12%	8%	17%	58%	14%	11%	19%	60%	11%	10%
	2005	24%	58%	11%	7%	18%	58%	13%	12%	19%	60%	11%	10%
	2001	7%	55%	18%	20%	7%	44%	20%	30%	9%	51%	17%	23%
Students on Free/	2002	7%	52%	19%	22%	7%	44%	19%	30%	8%	51%	18%	23%
Reduced Lunch	2003	9%	55%	18%	19%	7%	45%	19%	28%	8%	53%	18%	21%
	2004	10%	56%	18%	17%	7%	47%	21%	25%	8%	49%	18%	24%
	2005	13%	57%	16%	14%	7%	47%	20%	26%	9%	51%	18%	22%
	2001	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na	Na
	2002	2%	28%	25%	45%	2%	20%	20%	58%	5%	30%	22%	43%
LEP*	2003	2%	30%	23%	45%	1%	16%	22%	61%	7%	30%	24%	39%
	2004	3%	41%	25%	31%	2%	22%	22%	54%	1%	33%	22%	44%
	2005	3%	38%	26%	34%	1%	22%	23%	55%	4%	29%	26%	41%

<sup>\*</sup>LEP 2001 data were incomplete.

Table 3: 4, 8, 11 M
Customized Skills Reports: Montana Mathematics standards tested in the 2001-2005
Iowa Tests

	Standard		Use math	Use	Use	Understand	Understand	Use data	Use	
			processes to	numbers	algebraic	shape and	and use	analysis,	patterns,	
		solve problems,		and			measurement	probability	relations	
		estimate and		operations	processes	geometry	attributes and	and	and	
		communicate			and		processes	statistics.	functions	
					language.					
	# of Items		29	67	10	7*	9*	16*	NA	
4	<del></del>	01	64%	64%	72%	66%	52%	63%	9	
Grade 4	rrec	02	64%	64%	72%	67%	51%	63%	59%	
Gr	t Co	03	65%	65%	73%	68%	52%	64%	60%	
	Percent Correct	04	66%	66%	75%	70%	53%	65%	61%	
	<b>05</b> 67%		67%	68%	77%	78%	57%	69%	65%	
	# of Items		42	81	18	7*	13*	19	4*	
Grade 8		01	57%	53%	58%	53%	55%	68%	64%	
rac	nt ct	02	56%	53%	58%	53%	55%	67%	64%	
9	<b>Percent</b> Correct	03	56%	54%	58%	54%	54%	68%	65%	
	Pe C	04	57%	54%	59%	53%	54%	69%	66%	
		05	57%	55%	59%	58%	55%	69%	68%	
	# of Items		29	46*	15*	NA	7*	5*	5*	
e 11		01	55%	56%	56%	NA	46%	62%	53%	
Grade 11	nt	02	55%	56%	56%	NA	45%	62%	54%	
Gr	<b>Percent</b> Correct	03	55%	57%	57%	NA	47%	62%	55%	
	P. C.	04	55%	57%	57%	NA	46%	61%	54%	
		05	54%	57%	57%	NA	46%	62%	54%	

<sup>\*</sup> The Iowa Tests measure the knowledge dimension of the Montana Standard, but do not adequately measure the application aspect.

Tables 4a and 4b: 11 M

ACT Mathematics results for high school graduating classes of 2001-2005.

	Average Score All National	Average Score All Montana	Average Score White Montana	Average Score Native American Montana
2001	20.7	21.3	21.6	17.1
2002	20.6	21.4	21.45	17.65
2003	20.6	21.4	21.7	17.1
2004	20.7	21.4	21.8	17.0
2005	20.7	21.5	21.9	16.9

Number of Montana students in the 2001-2005 graduating classes participating in the  $\operatorname{ACT}$ 

	<b>Total Montana Students</b>	White Montana	Native American Montana
2001	6,641	5,699	319
2002	6,368	5,460	300
2003	6,470	5,514	282
2004	6,255	5,259	300
2005	6,178	5,154	312

**Tables 5a and 5b: 11 M**SAT Mathematics results for the high school graduating classes of 2001-2005.

	Average Score All National	Average Score All Montana	Average Score White Montana	Average Score Native American Montana
2001	514	539	541	468
2002	516	547	549	500
2003	519	543	545	473
2004	518	539	538	492
2005	520	540	541	502

Number of Montana students in the high school graduating classes of 2001-2005 participating in the SAT.

	<b>Total Montana Students</b>	White Montana	Native American Montana
2001	2,762	2,342	39
2002	2,870	2,314	47
2003	3,207	2,375	43
2004	3,321	2,808	45
2005	3,326	2,818	43

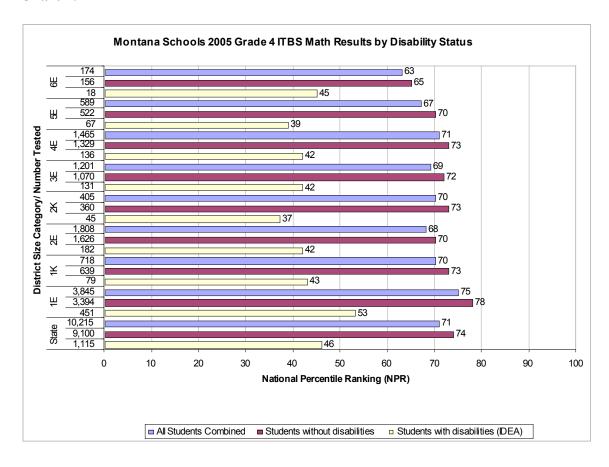
# Table 6: 4, 8, 11 M

NAEP data from 1994 and 1998 are included to add the picture of student achievement in Math. Although NAEP data give another perspective to the picture of Montana students in grades four and eight tested in 1994 and 1998, these are not the same 4<sup>th</sup> and 8<sup>th</sup> grade students measured in the 2002 statewide assessment.

With the scores of Montana White and Montana Native American students are percent of students who scored basic or above. It should be noted that the number of White students tested is considerably larger and therefore, generalizations are safer. For example, in the 2000 grade 4 test, 869 Montana White students and 118 Montana Native American students were included in the testing sample.

	Average Score								
	All	White	Native	A 11	White	Native			
Grade:Year	National	White National	American National	All Montana	Montana	American Montana			
<b>4</b> : 1996	224	232	216	228	231	209			
					(76%)	(43%)			
4: 2000	228	236	216	230	234	212			
					(78%)	(49%)			
<b>8</b> : 1996	272	282	264	283	287	265			
					(79%)	(55%)			
8: 2000	275	286	255	287	290	253			
					(84%)	(41%)			

#### Chart 4.1 M



# 1. All students

• The Math NPR for all Montana grade 4 students is 71%, five percentage points above 2004.

### 2. Students without disabilities

• Statewide, the NPR for students without disabilities is 74%, five percentage points above 2004. That number is stable with most district size categories plus or minus 2-4 percentage points except district size category 6E with 65%.

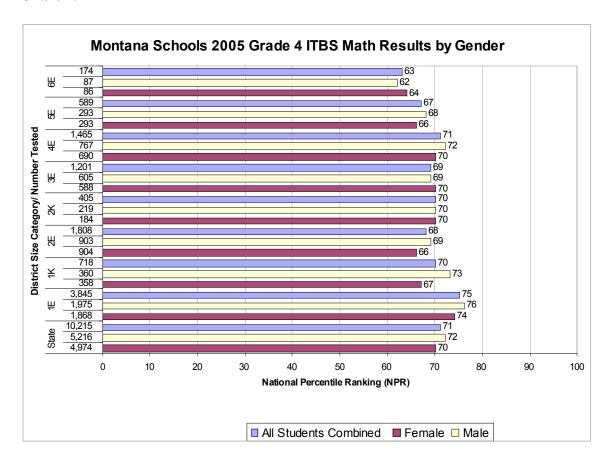
### 3. Students with disabilities

Statewide, the NPR for students with disabilities is 46%, six percentage points above 2004. That number is somewhat stable with most district size categories plus or minus 4-6 percentage points except district size categories 1E with 53% and 2K and 5E where the number of students with disabilities is too small for comparisons.

### 4. Comparisons

• Statewide, Montana students without disabilities scored 28 percentage points above students with disabilities, 74% and 46% respectively.

### Chart 4.2 M



# 1. All students

• The Math NPR for all Montana grade 4 students is 71%.

### 2. Female students

Statewide, the NPR for female students is 70%, five percentage points above 2004. That number is stable with all district size categories plus or minus 2-6 percentage points.

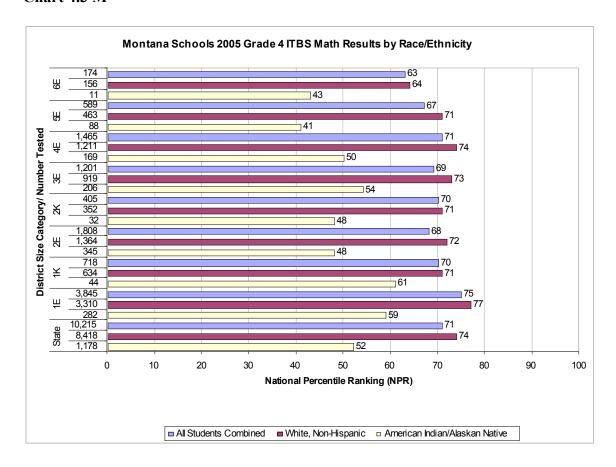
# 3. Male students

Statewide, the NPR for male students is 72%, five percentage point above 2004. That number is stable with most district size categories plus or minus 2-4 percentage points except district size category 6E with 62%.

# 4. Comparisons

• Statewide, male students scored two percentage points above female students, 72% and 70% respectively. That number is stable.

#### Chart 4.3 M



# 1. All students

■ The Math NPR for all Montana grade 4 students is 71%.

# 2. Native American students

• Statewide, the NPR for Native American students is 52%, six percentage points above 2004. That number is somewhat stable with variations that occur where the number of Native American students tested is small; however Native American students in district size category 1E averaged 59%.

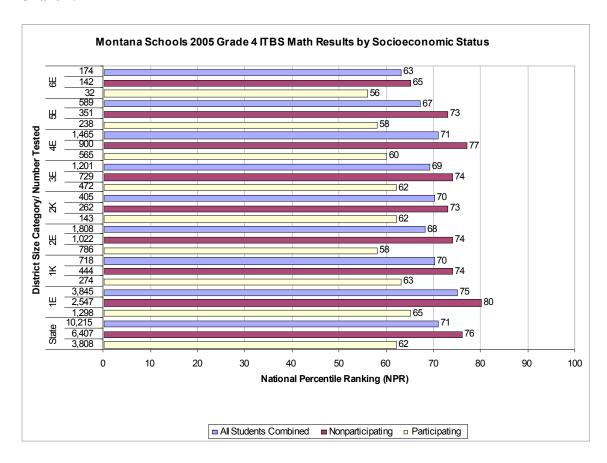
### 3. White students

• Statewide, the NPR for White students tested is 74%, five percentage points above 2004. That number is stable with most district size categories plus or minus 2-4 percentage points except district size category 6E where the number of Native American students is too small for comparisons.

# 4. Comparisons

• Statewide, Montana White students scored 22 percentage points above Native American students, 74% and 52% respectively. That number is stable.

#### Chart 4.4 M



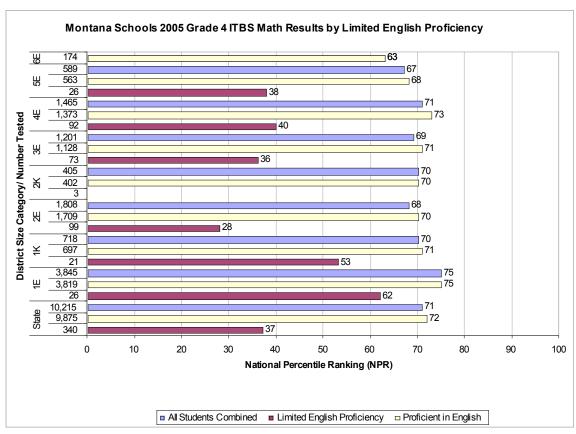
# 1. All students

- The Math NPR for all Montana grade 4 students is 71%.
- 2. Students participating in free/reduced lunch programs
  - Statewide, the NPR for students participating in free/reduced lunch programs is 62%, seven percentage points above 2004. That number is stable with most district size categories plus or minus 2-4 percentage points except 6E where the number of students tested is too small for comparisons.
- 3. Students not participating in free/reduced lunch programs
  - Statewide, the NPR for students not participating in free/reduced lunch programs is 76%, four percentage points above 2004. That number is stable with most district size categories plus or minus 2-4 percentage points except size category 6E with 65%.

# 4. Comparisons

• Statewide, students not participating in free/reduced lunch programs scored fourteen percentage points above students participating in free/reduced lunch programs, 76% and 62% respectively.

#### Chart 4.5 M



<sup>\*</sup> To protect privacy, no results will be reported where the count of test takers is less than 10.

#### 1. All students

- The Math NPR for all Montana grade 4 students is 71%.
- 2. Students with limited English proficiency (LEP)
  - Statewide, the NPR for LEP students is the same as in 2004, 37%. The NPR scores vary among school size categories because of the wide variation in the number of LEP students tested.

### 3. Comparisons

 Statewide, all Montana students scored 34 percentage points higher than limited English proficient students, 71% and 37% respectively. That number varies among school size categories because of the wide variation in the number of LEP students tested.